

Work Order ID 136679-1

Wednesday, September 02, 2015 2:44:17 PM

1/1 split

136679

Page 1

Item ID: D3886-041

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Lug Assembly

Stop *NS2*

Start Date: 9/23/2015 Start Qty: 8.00

Q

Cust Item ID:

Required Date: 9/28/2015 Req'd Qty: 8.00

Q

Customer:

Reference:

Approvals: Process Plan: MLS

Date: SEP 02 2015

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3886	B								

100

0.00

100

Waterjet

FLOW CNC Waterjet

Memo

0.01

FLOW WATER JET
1-Cut as per Dwg D3886-3
Dwg Rev: B
Prog Rev: B

2-Deburr if necessary

(10)

02/15/10/07

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Quality Control

Memo

0.00

(10)

02/15/10/07

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td style="border: none;"></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																
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Work Order ID 136679***136679***

Page 2

Wednesday, September 02, 2015 2:44:17 PM

Item ID: D3886-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Lug Assembly
Start Date: 9/23/2015 Start Qty: 8.00 ***g*** Cust Item ID:
Required Date: 9/28/2015 Req'd Qty: 8.00 ***g*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC8- Inspect parts - second check	0.00							
120		0.00							
QC	Memo								
Quality Control									DAS 38 9-89 OCT 13 2015
130		0.00							
130		0.01							
Brake NC	Memo								
Brake NC	form as per dwg D3886								DAS 30 9-89 OCT 13 2015
140	QC5- Inspect part completeness to step on W/O	0.00							
140		0.00							
QC	Memo								
Quality Control									DAS 38 9-89 OCT 13 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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Wednesday, September 02, 2015 2:44:17 PM

Item ID: D3886-041

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Lug Assembly

Start Date: 9/23/2015 **Start Qty:** 8.00

g

Cust Item ID:

Required Date: 9/28/2015 **Req'd Qty:** 8.00

g

Customer:

Reference:

Run Start *NR1*

Approvals: Process Plan: Date: Tooling: Date:

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center ID

Operation Description

Set Up/ Run Hours

Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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150

0.00

150

0.03

Large Fab

Memo

Weld as per Dwg D3886 and QSI.004 use DT9626

A/R SS ROD Batch: 126010

160

QC9- Inspect visual per QSI004- Fusion Welds

0.00

160

0.00

OC

Memo

Quality Control

170

QC5- Inspect part completeness to step on W/O

0.00

170

0.00

QC

Memo

Quality Control

hole dimension 313^n

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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Date : _____	Step #: _____	QTY Effective : _____		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

136679

Wednesday, September 02, 2015 2:44:17 PM

N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 9/23/2015 Start Qty: 8.00 *g*

Cust Item ID:

Required Date: 9/28/2015 Req'd Qty: 8.00 *O*

Customer:

Reference:

Approvals: **Process Plan:** **Date:** **Tooling:** **Date:**

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Insp.
Stamp

White Gloss(Ref:4.3.5.2) per QSI005 4.3-Steel

0.00

180

m 138714.

0,00

Powdercoat

Memo

Powder Coating

START: 2:30.
WEN. T: 400°
FINISH: 3:00.

80 16-01-12

QC3- Inspect Part Finish

0.00

190

Memo

0.00

OC

Memo

Quality Control

8

DAS
38
9-89

JAN 13 2016

Identify as per dwg & Stock Location: 5526

0.00

200

Memo

0.00

Packaging

Memo

Packaging

9

JAN 15 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval																	
Description Work Order Deviation		Disposition		Completed By																	
				Lead hand / Supervisor Approval Verification																	
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OTHER : _____																					

Work Order ID 136679***136679***

Page 5

Wednesday, September 02, 2015 2:44:17 PM

Item ID: D3886-041

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Lug Assembly

Start Date: 9/23/2015 Start Qty: 8.00

8

Cust Item ID:

Required Date: 9/28/2015 Req'd Qty: 8.00

8

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

210

QC21- Final Inspection - Work Order Release

0.00

210

QC

Memo

0.01

Quality Control

MLS

JAN 15 2016

MLS

JAN 15 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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Wednesday, September 02, 2015 2:44:16 PM

Page 1

136679

D3886-041

Required Date: 9/28/2015

Required Qty: 8.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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M304S12GA

22/10/08

m131322

1.5

8

D3886-1

16-01-11

WA002

8

133790

20

DQA: _____ Date: _____



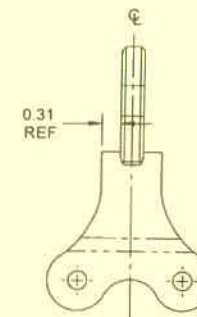
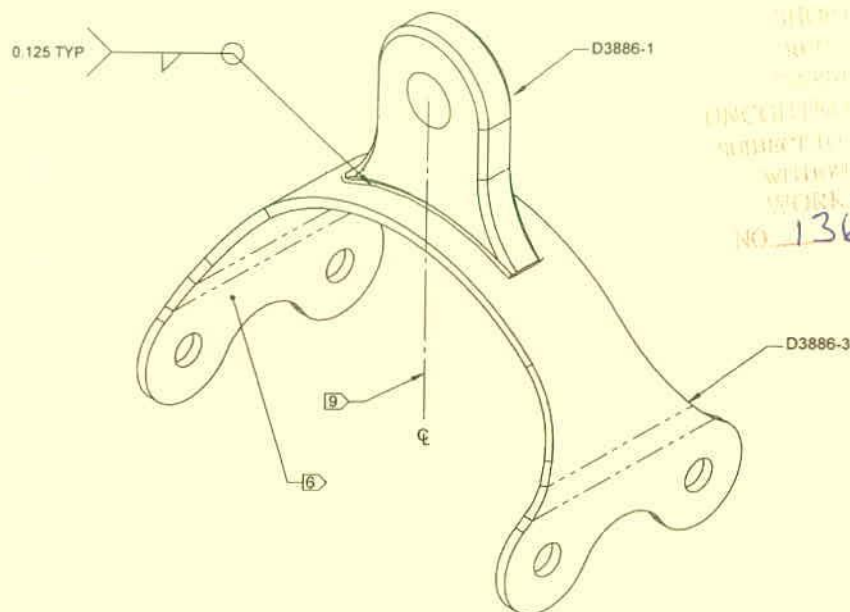
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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Date :		Step #:		QTY Effective :			MRB (QS1042) Approval																		
Description Work Order Deviation				Disposition				Completed By																	
								Lead hand / Supervisor Approval Verification																	
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Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐																				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐																				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐																				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐																				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____																							
Misidentified ☐	Past Due ☐																								

ITEM	QTY -041	P/N	DESCRIPTION
1	X	D3886-041	LUG ASSEMBLY
2	1	D3886-1	LUG
3	1	D3886-3	BRACKET



D3886-041 LUG ASSEMBLY

RELEASED
9/17/10

NOTES:

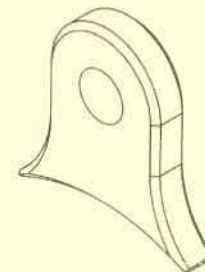
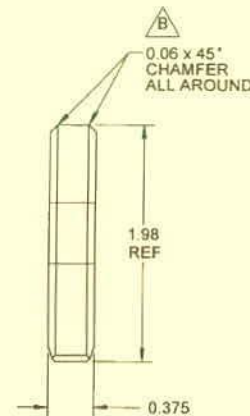
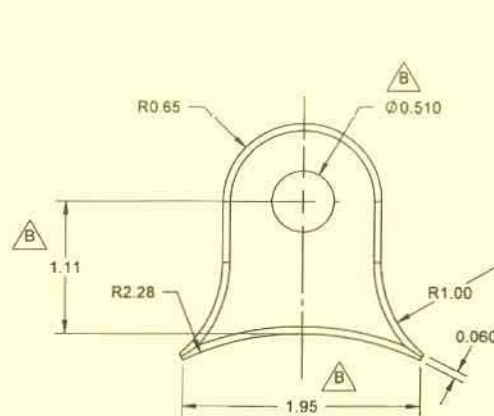
- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3886-041" AND BATCH NUMBER USING FINE POINT PERMANENT INK MARKER ON UNDERSIDE OF PART
- 7) WEIGHT: 0.53 lbs
- 8) WELD PER DART QSI 004
- 9) BOTH PARTS CENTER SHOULD BE IN LINE WITH THE C

B	RE-DESIGN D3886-1 (ZN 84-2); RE-DESIGN D3886-3 (ZN A4-3); REVISED D3886-3F (ZN 84-4)	RF	09.06.30
A	NEW ISSUE	RF	09.03.30
REV	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	RF		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	09.06.30		

DART AEROSPACE USA, INC.
PORT HADLOCK, WA

DRAWING NO.
D3886
REV. B
SHEET 1 OF 4
SCALE
NTS

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D3886-1 LUG B

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL BAR (REF. DART SPEC. M304B0.750X2.500)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.23 lbs

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[Signature]

DESIGN	RF	DART AEROSPACE USA, INC. PORT HADLOCK, VA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO. D3886	REV. B
MFG. APPR.	<i>[Signature]</i>	SHEET 2 OF 4	
APPROVED	<i>[Signature]</i>	TITLE LUG ASSEMBLY	SCALE NTS
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8 7 6 5 4 3 2 1

D

C

B

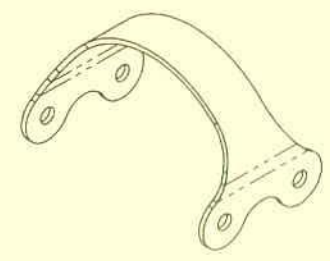
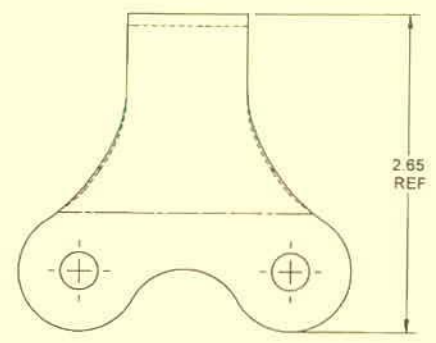
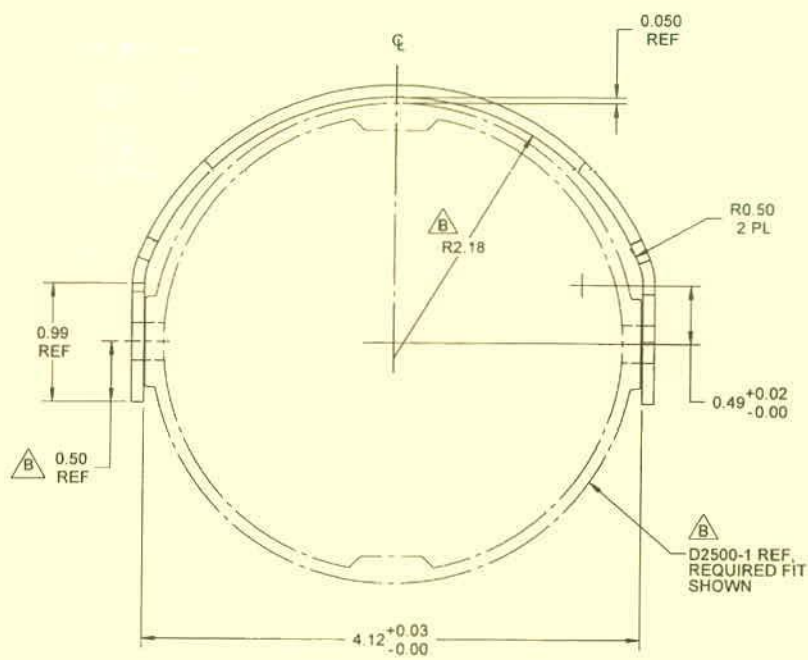
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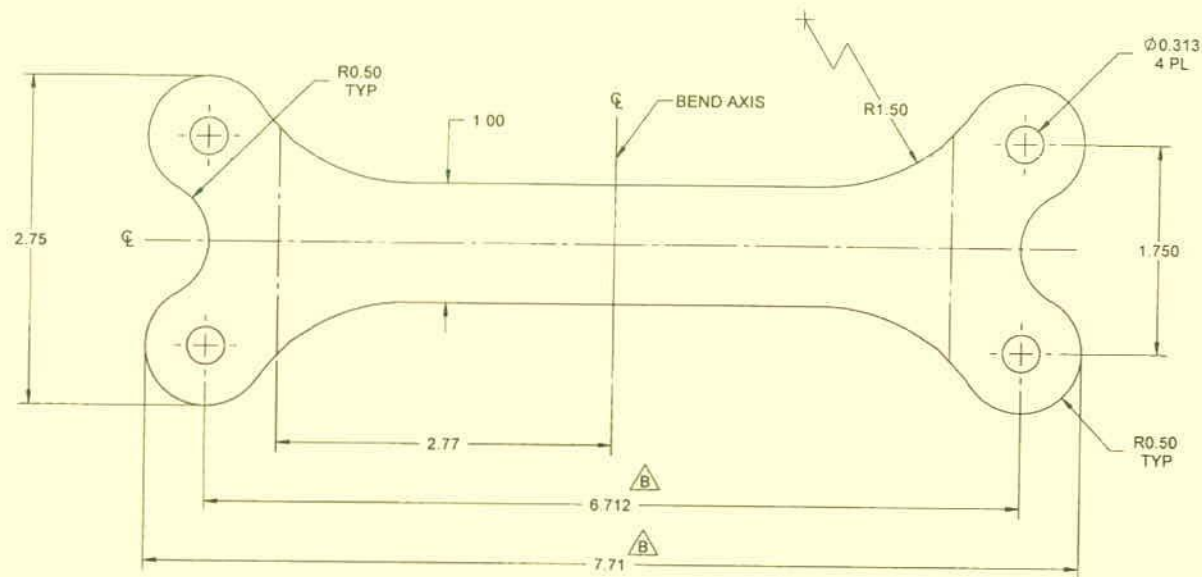


D3886-3 BRACKET $\triangle B$
(MAKE FROM D3886-3F)

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09/07/15/16

DESIGN	RF	DART AEROSPACE USA, INC.	
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CHECKED	<i>RF</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>RF</i>	D3886	SHEET 3 OF 4
APPROVED		TITLE	SCALE
DE APPR.	<i>RF</i>	LUG ASSEMBLY	NTS
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8 7 6 5 4 3 2 1



D3886-3F FLAT PATTERN $\triangle B$

RELEASED
9/27/15

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET 12 GAUGE (0.100) THICK, (REF. DART SPEC. M304S12GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.30 lbs

DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	RF	PORT HADLOCK, WA	
CHECKED	<i>[Signature]</i>	DRAWING NO	REV. B
MFG. APPR.	<i>[Signature]</i>	D3886	SHEET 4 OF 4
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	LUG ASSEMBLY	NTS
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